

United States General Accounting Office

GAO

**Report to the Honorable
Douglas (Pete) Peterson, House of
Representatives**

November 1996

MILITARY RETIREMENT

Possible Changes Merit Further Evaluation



19961210 080

G A O
75 years
1921 - 1996

GAO

United States
General Accounting Office
Washington, D.C. 20548

National Security and
International Affairs Division

B-275254

November 15, 1996

The Honorable Douglas (Pete) Peterson
House of Representatives

Military Retirement
Possible Changes Merit
Further Evaluation

Dear Mr. Peterson:

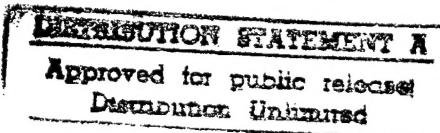
This report responds to your request that we review selected aspects of the military retirement system. Specifically, we addressed (1) military retirement costs, (2) the role of military retirement in shaping and managing U.S. forces, and (3) proposed changes to modernize the system and contribute to more efficient force management. As part of our review, we hosted a roundtable discussion on June 12, 1996, at which several current and former Department of Defense officials and compensation experts expressed their views on those aspects of the military retirement system included in our review.

We are sending copies of this report to the Chairmen and Ranking Minority Members, Senate Committee on Armed Services, House Committee on National Security, and Senate and House Committees on Appropriations; the Secretary of Defense; and other appropriate parties. We will also make copies available to others on request.

Please contact me at (202) 512-5140 if you or your staff have any questions concerning this report. Major contributors to this report are listed in appendix IV.

Sincerely yours,

Mark E. Gebicke
Director, Military Operations
and Capabilities Issues



DTIC QUALITY INSPECTED 4

Executive Summary

Purpose

In recent years, U.S. armed forces have been affected by substantial changes, including the end of the Cold War, subsequent downsizing, and significant technological advances and associated increases in skill requirements for military personnel. Also, considerable changes have been made to the design of many civilian retirement systems over the past 2 decades. All of these changes, along with increasing federal budget pressures, have focused attention on whether the military retirement system is best designed to efficiently meet the needs of the Department of Defense (DOD) and members of the military services.

As requested, GAO reviewed the military retirement system. Specifically, GAO addressed (1) military retirement costs, (2) the role of military retirement in shaping and managing U.S. forces, and (3) proposed changes to modernize the system and contribute to more efficient force management. As part of its review, GAO hosted a roundtable discussion on June 12, 1996, at which several current and former DOD officials, as well as compensation experts, expressed their views on those aspects of the military retirement system included in GAO's review.

Background

The basic structure of the current U.S. military retirement system was established in legislation over a period of years, ending in the late 1940s. The system provides benefits to nondisabled service members when they retire from active or reserve duty and service members who retire on disability. It also provides for optional survivor coverage. It is a noncontributory, defined benefit plan that allows retiring active duty service members with 20 or more years of service to receive an immediate, lifetime annuity with cost-of-living adjustments, regardless of age.¹

In 1980 and 1986, the benefit formulas for new entrants to the military services were changed to reduce costs, and the 1986 changes provided incentives for longer careers. Although the basic structure of the retirement system was left intact, the changes in the benefit formulas resulted in the three separate versions of the military retirement system that are currently in effect.² Since 1957, military personnel have paid social security taxes and thus earned credits toward social security benefits.

¹In a defined benefit system, employers promise to pay specific retirement benefits that are generally based on a formula that considers job tenure and earnings.

²Service members who entered the military before September 8, 1980, are under one version; those who entered on or after September 8, 1980, and before August 1, 1986, are under a second version; and those who entered on or after August 1, 1986, are under a third version.

Results in Brief

Payments from the military retirement fund to military retirees and their survivors totaled \$29 billion in fiscal year 1996. These payments have been rising over several decades as both the number of military retirees and the average payment to individual retirees have increased. These payments are expected to peak at slightly more than \$30 billion (in fiscal year 1995 dollars) in 2007. Since fiscal year 1985, the "accrual accounting" concept has been used to reflect the cost of future retirement payments for current service members in DOD's military personnel budget. These annual DOD budgetary costs have declined for several reasons, including lower benefits for new entrants, changes in economic and actuarial assumptions to reflect experience, and recent decreases in force size. These costs—about \$11 billion in fiscal year 1996—constitute approximately 4 percent of DOD's budget.

The military retirement system strongly influences the broad shape of the force. The retirement system provides an increasing incentive for service members to stay in the military as they approach 20 years of service and encourages them to leave thereafter, helping DOD to retain midcareer personnel and yielding a relatively young force. However, the system can also impede effective force management. Because military personnel are not entitled to any retirement benefits unless they have served 20 years, the services have been reluctant to involuntarily separate personnel with less than 20 years of service beyond a certain point due to the financial consequences for service members and their families and the resulting impact on morale. Moreover, some analysts, including several of GAO's roundtable participants, believe the military retirement system is an obstacle to achieving a force of the right size and composition because the system provides the same career length incentive for all categories of personnel. These analysts maintain that 20 years may not be the optimal career length for all military personnel.

Proposals to change the military retirement system range from modifications of various features of the current system to complete alternatives. Those proposals are intended to improve efficiency and flexibility in managing the force, increase fairness or attractiveness to service members, and reduce costs. Earlier vesting of at least a portion of military retirement benefits is a common feature of proposed changes.³ Cost estimates done by the DOD Actuary, at GAO's request, suggest that some type of earlier vesting could be offered with little or no increase to DOD's retirement costs. The total impact on DOD's budget of the proposed

³In this report, the term vesting refers to a service member's right to receive some retirement benefit, regardless of whether the benefit is paid immediately or deferred.

changes depends on their effect on retention and force composition. Some analysts, including several of GAO's roundtable participants, have called for more fundamental changes to the retirement system, possibly with other changes in compensation and personnel policy, to accommodate different career lengths for different personnel. These changes could increase effectiveness or reduce costs by yielding a force of a different composition and size than today's force.

Principal Findings

Military Retirement Costs

Pressures to reduce the federal budget deficit have focused attention on the level of payments to current military retirees. These payments, which totaled \$29 billion in fiscal year 1996, have been rising for several decades as the retiree population has grown and as average payments to individual retirees have increased. They are expected to peak, in fiscal year 1995 dollars, at about \$30 billion in 2007.

Since 1985, DOD's budget has reflected the estimated amount of money that would have to be set aside in that year to cover the future retirement costs of current service members.⁴ Those costs, \$11 billion in fiscal year 1996, have declined over the past decade due to reduced benefits for new entrants, changes to the DOD Actuary's economic and actuarial assumptions, and reductions in the size of the force.

Even with the reductions to military retirement benefits resulting from the changes in benefit formulas in 1980 and 1986, some observers question whether military retirement benefits have the right weight in overall military compensation. These observers maintain that the appropriate indicator of the level of retirement benefits is how well they contribute to the services being able to build and maintain the force they need.

Military Retirement's Role in Shaping and Managing the Force

The retirement system is widely viewed as a substantial influence on the broad shape of the force. With its combination of 20-year vesting and the payment of an immediate annuity at any age after 20 years of service, the

⁴Funds appropriated in DOD's budget to cover future retirement costs are recorded as payments to the Military Retirement Fund. The fund's assets are nonmarketable, special-issue Treasury securities, which constitute a promise on the part of the U.S. government to pay based on the government's power to collect taxes. Thus, the military retirement system actually continues to be financed on a pay-as-you-go basis, as do the retirement systems for most federal civilian employees, Social Security, and the rest of the federal government.

system is designed to foster a relatively young force and ensure a flow of experienced personnel through encouraging those with 20 or more years of service to retire. The system generally serves as a very strong retention tool, pulling personnel after a certain career point to stay at least 20 years. It has thus been valuable as a force stabilizer. Although recent historical experience has shown that about 15 percent of entering enlisted personnel and 48 percent of entering officers become eligible for retirement, the percentage of personnel with 10 years of service who reach retirement eligibility has been about 70 percent for enlisted personnel and over 90 percent for officers.

The retirement system contributes to the difficulty of changing the size or composition of the force. The services are reluctant to involuntarily separate personnel, with less than 20 years of service, past the midcareer point because of the financial consequences for service members and their families and the resulting impact on morale. This situation was highlighted by the need for temporary measures to induce separations or compensate involuntarily separated members with less than 20 years of service during the recent drawdown.

Some analysts maintain that today's military needs many service members for less than 20 to 30 years and may want to retain others for longer. By offering the same career length incentives to all personnel, the retirement system can impede effective force management. For example, although some military combat specialties require youth and vigor, experience may be of greater value in occupations such as systems acquisition or intelligence analysis. One roundtable participant advocated lengthening careers for senior officers and shortening them for other officers partly because of the increased requirements senior officers face for both formal education and joint operational experience.

Two views were expressed at GAO's roundtable regarding the information necessary to justify fundamental retirement system changes. One view was that designing the right types of management policies, including the retirement system, required first determining what kind of force DOD is trying to build for the future. The other view was that such foresight was unlikely and a retirement system that could accommodate changes in circumstances was needed.

Options for Modifying the Military Retirement System

Various proposals to modify the military retirement system have sought to increase force management efficiency or flexibility, increase fairness or

attractiveness to members, and reduce costs. These proposals include modifications or additions to the current system as well as complete alternatives. A common feature of many proposals, generally supported by GAO's roundtable participants, is that service members be vested earlier in some type of retirement benefit. At GAO's request, the DOD Actuary estimated the impact on retirement accrual costs of (1) three changes to the system that provide earlier vesting in a benefit that could be paid either as a deferred annuity or a lump-sum payment upon separation and (2) a tax-deferred savings option (with and without government matching) for military personnel. According to the Actuary's cost estimates, DOD may be able to provide some earlier vesting of retirement benefits with little increase in retirement costs. For example, the cost estimate for a deferred annuity adjusted for inflation would increase the current military retirement system cost by less than 1 percent of basic pay. Predicted total cost impacts depend in part on the extent to which particular changes result in significantly different retention behavior and yield a more junior (or senior) force. Some analysts have called for major changes to the retirement system, often along with other changes in compensation and personnel policy. One alternative proposed at GAO's roundtable discussion was to create a two-part system for military personnel. Service members in occupations requiring youth and vigor would be under the current system (modified to vest earlier), and others would be under a system similar to the Federal Employees Retirement System (FERS).

In general, the greater the change to the military retirement system, the greater the uncertainty surrounding predicted impacts. Predicting cost and other impacts of retirement system changes is difficult partly because of uncertainty about retention impacts. For example, a recent RAND analysis of placing military personnel under a FERS-type system concluded that the change would reduce retirement costs but that maintaining the current size and quality force would require a pay increase and a system of separation payments. The analysis predicted the change would result in net cost savings to DOD. If changes in retirement and other aspects of personnel policy allow military objectives to be achieved with a smaller, more efficient force, cost savings could be greater. The most sophisticated analysis may be a poor predictor of substantial retirement system changes, according to several of GAO's roundtable participants. They noted that impacts of the 1980 and 1986 changes to the retirement system are not yet known. Characteristics of the desired future force are important in evaluating the risks and benefits of retirement system changes.

Recommendations

GAO is not making any recommendations in this report.

Agency Comments

DOD provided written comments on a draft of this report. DOD stated that it did not object to the overall thrust of the report but did, however, express concern that the report's discussion of potential changes to the retirement system could be taken to suggest a consensus on specific shortcomings of the system. DOD emphasized the overall effectiveness of the retirement system in providing the military with needed personnel and stated that the impact of 1980 and 1986 changes to the system should be fully assessed before further changes are made. DOD's specific comments appear in appendix III.

Contents

Executive Summary	2
<hr/>	
Chapter 1	10
Introduction	10
The Three Versions of the Retirement System	10
Accounting for Military Retirement Costs	11
Objectives, Scope, and Methodology	12
<hr/>	
Chapter 2	14
Military Retirement	14
Costs	17
Federal Outlays for Military Retirees	14
Military Retirement Cost as a Defense Budget Item	17
<hr/>	
Chapter 3	21
Military Retirement's	21
Role in Shaping and	22
Managing the Force	24
Force Management Objectives of the Military Retirement System	21
The Retirement System Affects Force Composition	22
The Retirement System Can Hamper Effective Force	24
Management	
Retirement System Assessment Depends on Characteristics of	26
the Desired Force	
<hr/>	
Chapter 4	29
Options for Modifying	29
the Military	30
Retirement System	36
Several Features Targeted for Change	30
Analysis of Selected Modifications to the Current System	36
Proposals for Fundamental Retirement System Changes	37
Conclusions	37
Agency Comments	38
<hr/>	
Appendixes	40
Appendix I: Summary of GAO's Military Retirement Roundtable	40
Discussion	
Appendix II: Selected Retirement System Options	46
Appendix III: Comments From the Department of Defense	51
Appendix IV: Major Contributors to This Report	53
<hr/>	
Tables	11
Table 1.1: Military Retirement System Benefit Formulas	11
Table 2.1: Costs of Selected Retirement Systems as a Percent of	20
Pay	
Table 4.1: Accrual Cost Measured as Normal Cost Percentages of	31
Current Military Retirement System and	
Options 1 Through 3	

Figures

Figure 2.1: Military Retirement Outlays, Historical and Projected	15
Figure 2.2: Military Retirement Normal Costs as a Percent of Current Service Members' Basic Pay	17
Figure 2.3: Military Retirement Normal Costs Compared With Personnel Costs and Other DOD Budget Categories	18
Figure 3.1: Retention Patterns for Active Duty Personnel	23
Figure 4.1: Value of Officer Future Retirement Benefits According to Years of Service Under the Current System and Options 1 and 3	33
Figure 4.2: Value of Officer Future Retirement Benefits According to Years of Service Under the Current System and Option 4	34

Abbreviations

CSRS	Civil Service Retirement System
DOD	Department of Defense
FERS	Federal Employees Retirement System
QRMC	Quadrennial Review of Military Compensation
RDT&E	research, development, test, and evaluation
SSB	Special Separation Benefits
TERA	Temporary Early Retirement Authority
TSP	Thrift Savings Plan
VSI	Voluntary Separation Incentives

Introduction

The basic structure of the U.S. military retirement system was established in legislation over a period of years, ending in the late 1940s. The system provides benefits to nondisabled service members when they retire from active or reserve duty and service members who retire on disability. It also provides for optional survivor coverage.¹ It is a noncontributory, defined benefit plan that allows retiring active duty service members with 20 or more years of service to receive an immediate lifetime annuity with cost-of-living adjustments, regardless of age.² In 1980 and 1986, benefit formulas for new entrants were changed to reduce costs and, in 1986, provide incentives for longer careers, but the basic structure of the system was left intact.

In recent years, U.S. armed forces have been affected by substantial changes, including the end of the Cold War, subsequent downsizing of U.S. forces, and significant technological advances and associated increases in skill requirements for military personnel. These changes, along with increasing federal budget pressures, have focused attention on whether the military retirement system is best designed to efficiently meet the needs of the Department of Defense (DOD) and service members.

The Three Versions of the Retirement System

Currently, members are covered by three separate versions of the nondisability retirement system based on when they entered military service.³ Retired active duty personnel who entered the service before September 8, 1980 (known as pre-1980), receive a benefit equal to a percentage of their final basic pay,⁴ calculated by multiplying their years of service by 2.5 percent. The benefit is 50 percent of basic pay for 20 years of service and reaches a maximum of 75 percent of basic pay for 30 years of service. For members who entered military service on or after September 8, 1980, and before August 1, 1986 (known as 1980-86), the accrual percentage is the same, but an average of the highest 3 years of basic pay, rather than the final level of basic pay, is used in the calculation. For members who entered the service on or after August 1, 1986 (known as post-1986), the accrual percentage for benefits before age 62 is lower

¹Since 1953, military personnel have had the option to receive reduced retired pay to provide survivor benefits for spouses and children.

²In a defined benefit plan, employers promise to pay specific retirement benefits that are generally based on a formula that considers job tenure and earnings.

³Since 1957, military personnel have paid social security taxes and thus earned credits toward social security benefits.

⁴Basic pay averages about 72 percent of regular military compensation, which also includes housing and subsistence allowances.

for members with less than 30 years of service. Retirement pay is 40 percent of the average of the highest 3 years of basic pay for 20 years of service, gradually increasing to 75 percent for 30 years of service. Benefits for this last group are not fully protected against inflation, whereas benefits for the first two groups are fully protected. Table 1.1 shows details of the benefits for the three military retirement systems.

Table 1.1: Military Retirement System Benefit Formulas

Plan	Description
Pre-1980	2.5 percent for each year of service up to a maximum of 75 percent of final basic pay. Retired pay is adjusted annually by the increase in the consumer price index.
1980-86	2.5 percent for each year of service up to a maximum of 75 percent of the average of the highest 3 years of annual basic pay (known as the high three). Retired pay is adjusted annually by the increase in the consumer price index.
Post-1986	Same as the 1980-86 benefit formula, except benefit is reduced by 1 percentage point for each year of service less than 30. At age 62, the retired pay is recomputed with the penalty removed. Retired pay is adjusted annually by 1 percentage point less than the increase in the consumer price index, with a one-time restoral in purchasing power at age 62.

Source: DOD Actuary.

Accounting for Military Retirement Costs

The DOD Authorization Act of 1984 established the Military Retirement Fund, which became effective on October 1, 1984. With the establishment of the fund, the military retirement system went from pay-as-you-go accounting and budgeting to accrual-based accounting and budgeting. At that time, payments to individuals who had already retired began to show up in the federal budget as disbursements from the Military Retirement Fund and not as payments from DOD's military budget.

Under accrual-based accounting, the Secretary of Defense is required to allocate a percentage of annual military basic pay costs to the fund to meet future retirement obligations for current service members. This amount is paid from DOD's military personnel account and is based on actuarial and economic assumptions. This payment is called the "normal cost" payment, or the retirement accrual charge.

When the fund was established, the unfunded costs of retirement benefits already accrued became apparent. The initial unfunded liability as of September 30, 1984, was \$528.7 billion (\$751.8 billion in fiscal year 1995

dollars). The unfunded liability is being amortized over a period of 50 years with payments to be made to the Military Retirement Fund from the Treasury Department. Changes in the amount of the unfunded liability "owed" to the fund can occur due to changes in economic assumptions, changes in the benefit formula for retired pay, or differences between anticipated accounting gains or losses in the fund and actual experience. The value of the unfunded liability as of September 30, 1995, was \$500.8 billion.

In addition to normal cost payments from DOD's military personnel account and unfunded liability amortization payments from the Treasury, the Military Retirement Fund receives income from interest earnings on investments in nonmarketable, special-issue Treasury securities. All three of these payments are intragovernmental transfers consisting of debits from one government account and credits to another. In addition to making payments to military retirees and their survivors, the fund purchases the special-issue Treasury securities, another intragovernmental transfer. The adoption of accrual-based accounting caused future retirement outlays to be recognized as a future liability and thus made the total cost of current personnel decisions evident. However, the military retirement system continues to be financed on a pay-as-you-go basis, as are the federal retirement systems for most civilian workers and Social Security, in that benefits paid each year are financed by federal revenues received that year.

Objectives, Scope, and Methodology

As requested, we reviewed selected aspects of the military retirement system. Specifically, we addressed (1) military retirement costs, (2) the role of military retirement in shaping and managing U.S. forces, and (3) proposed changes to modernize the system and contribute to more efficient force management. As part of our review, we hosted a roundtable discussion on June 12, 1996, at which several current and former DOD officials, as well as compensation experts, expressed their views on those aspects of the military retirement system included in our review. A summary of the discussion and a list of roundtable participants appear in appendix I.

We focused our review on the nondisability active duty military retirement system. We identified and reviewed studies and data concerning the military retirement system and proposed changes. We interviewed military personnel, compensation, and force management officials from the Army, the Navy, and the Air Force. We also spoke with officials from the Office

of the Secretary of Defense; Retired Officers Association; Retired Enlisted Association; Congressional Research Service; Congressional Budget Office; Office of Management and Budget; Office of Personnel Management; Brookings Institution; Employee Benefits Research Institute; Hay-Huggins Management Consultants; ICF Kaiser International, Inc.; KPMG Peat Marwick; and RAND.

We reviewed historical data and the current projections of future retirement costs from the DOD Actuary. At our request, the Actuary also provided retirement cost estimates for selected proposals for change. We did not validate or verify the Actuary's results, and the estimates only reflected retirement costs, not the total cost impacts to DOD. The four proposals we selected represent past proposals and suggestions from roundtable participants. Each proposal retains the basic feature of allowing retirement with an immediate annuity after 20 years. In addition, we collected and analyzed data on costs of civilian retirement systems and compared these costs with those of the military retirement system.

We conducted our review from December 1995 to September 1996 in accordance with generally accepted government auditing standards.

Military Retirement Costs

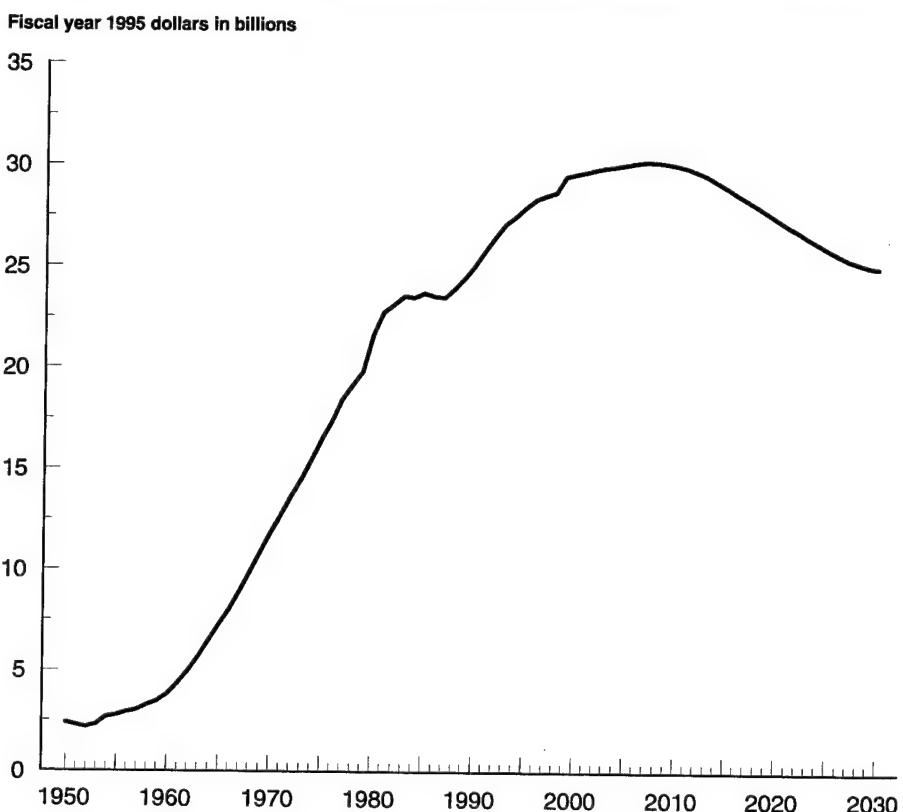
The cost of military retirement can be measured in a number of ways. For understanding military retirement cost as a portion of total federal government outlays and its impact on the current budget deficit, outlays to existing retirees are the appropriate measure. However, these outlays represent obligations already incurred. For evaluating military retirement as an aspect of current government and DOD policy, the accrual costs in DOD's budget, which reflect future retirement outlays for individuals now serving in the military, are the relevant measure.

Federal Outlays for Military Retirees

In fiscal year 1996, the United States paid \$29 billion to military retirees and their survivors.¹ Figure 2.1 shows historical and projected federal government outlays for military retirement. The outlays are projected to increase to slightly more than \$30 billion (in fiscal year 1995 dollars) by the year 2007, after which they will decline, in inflation-adjusted terms.

¹This amount represents payments from the Military Retirement Fund and does not include social security payments to military retirees.

**Figure 2.1: Military Retirement Outlays,
Historical (1950-95) and Projected
(1996-2030)**



Source: DOD Actuary.

Military retirement outlays have increased in constant dollars since 1960 due to the increase in the number of retirees, average retired pay, and survivor benefits. For example, from 1960 to 1995, the number of retirees grew sixfold—from 254,000 to 1,603,000—due primarily to the rise in the proportion of service members reaching retirement and somewhat to higher life expectancy. Over the same period, average annual inflation-adjusted pay per retiree rose by about 11 percent as military basic pay, on which retired pay is based, grew faster than inflation. Also, the percentage of retirees electing survivor benefits increased from 15 to 60, and the population of survivors receiving payments went from a few thousand in 1960 to 213,000 in 1995.

Federal budget pressures have heightened interest in opportunities to reduce spending both in the near and long term. Efforts to reduce near-term spending have resulted in several initiatives to achieve savings through trimming payments to existing retirees.² One initiative was a fiscal year 1996 budget resolution proposal to reduce outlays for those who entered the military before September 1980 by computing benefits on an average of the final year of basic pay instead of the final basic pay. (This initiative was removed from both the House and Senate versions of the reconciliation bill.) Other initiatives included a proposal to reduce inflation adjustments for all nondisabled retirees and a bipartisan plan to reduce inflation adjustments and the retired pay computation formula for retirees under age 50.

Reactions to these initiatives demonstrated that proposals to change retirement benefits for service members already retired are likely to meet strong opposition. For example, in expressing DOD's view of the fiscal year 1996 budget proposal, the Secretary of Defense said he would do everything he could to "... drive a stake through the heart of this idea." One reason cited for the defense community's opposition to this proposal is that retroactive changes constitute a breach of promise to service members, which could undermine DOD's credibility. This position is consistent with the views of DOD officials and some analysts that changes to the military retirement system should apply only to new entrants so that the changes do not affect the terms under which a service member began his or her career.

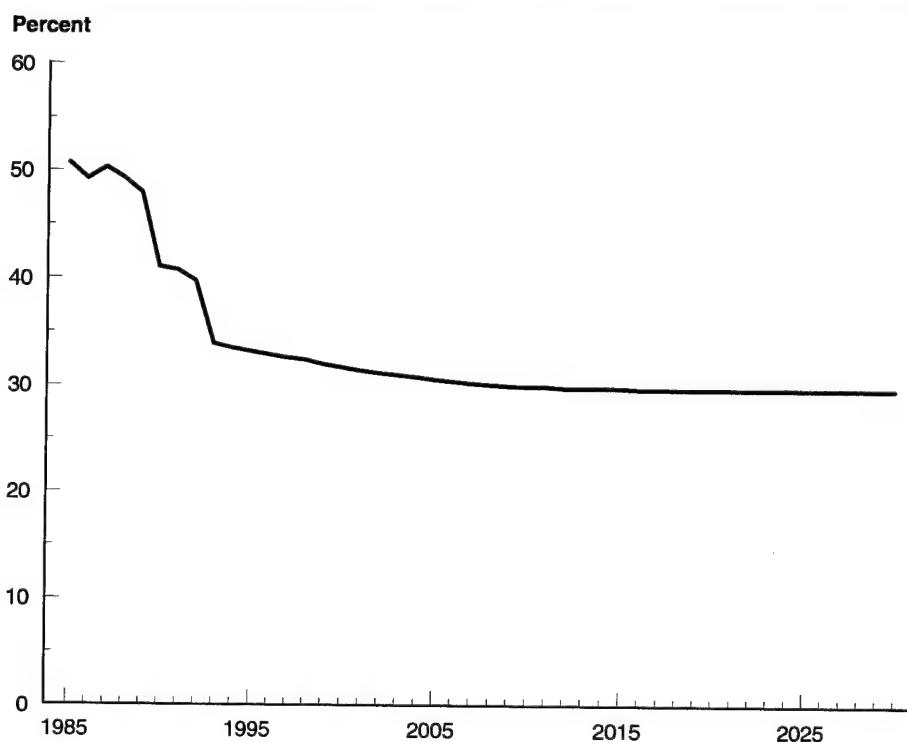
There is, however, tension regarding the disparity between benefits to current retirees and service members under the more generous systems, on one hand, and those members covered by a less generous system, on the other. Moreover, one of our roundtable participants observed that lifetime benefits to personnel currently retired will generally exceed expectations due to longer lifetimes. Participants also noted that all of society will have to make adjustments as the country's budgetary strains continue to grow.

²One of our roundtable participants put the magnitude of military retirement current and projected outlays in context by comparing them with those under the broadest federal entitlement programs, such as Medicare and Social Security. Medicare spending in fiscal year 2000 is projected to be about \$200 billion, and outlays for Social Security are projected to be about \$369 billion (both in fiscal year 1995 dollars). Even though those programs, which apply to huge proportions of the population, can make almost any category of federal spending appear small, they are provided as examples to illustrate that the deficit will not be dramatically affected by adjustments in payments to current military retirees.

Military Retirement Cost as a Defense Budget Item

Military retirement accrual cost for active duty personnel was an \$11 billion DOD budget item in fiscal year 1996. DOD paid this amount into the Military Retirement Fund to reflect the future retirement obligations being generated by current personnel. Trends in DOD budget costs, called retirement accruals or normal costs, are shown as a percent of basic pay in figure 2.2. Normal cost payments, expressed in dollar amounts instead of as a percent of basic pay, show a similar pattern over the period.

Figure 2.2: Military Retirement Normal Costs as a Percent of Current Service Members' Basic Pay (1985-2030)



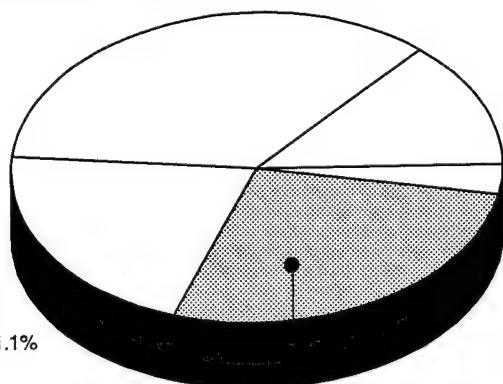
Source: DOD Actuary.

Military retirement normal cost percentages have declined sharply since the inception of accrual accounting in fiscal year 1985. This decline is due to more service members being under less generous retirement plans and changes made in actuarial assumptions to reflect experience. However, as

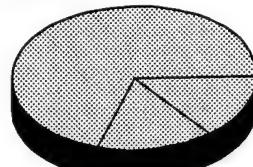
shown in figure 2.3, military retirement normal costs remain a significant DOD budgetary item. They comprised nearly 16 percent of DOD's \$70.7 billion personnel costs in fiscal year 1995 and 4.3 percent of DOD's fiscal year 1995 \$257.8 billion budget.

Figure 2.3: Military Retirement Normal Costs Compared With Personnel Costs and Other DOD Budget Categories

Operation and maintenance 35%



Active military personnel 69.9%



Note: RDT&E, research, development, test, and evaluation.

Source: DOD.

Analysts, including some of our roundtable participants, have advocated that the DOD Actuary be instructed to calculate separate normal cost percentages for each service and for officers and enlisted personnel to improve the use of the information for force management purposes. Although they are not reported separately, actual normal cost percentages are significantly different for each service and for officers and enlisted personnel. These differences exist because the services have varying percentages of personnel staying to retirement and a greater proportion of officers stay to retirement than enlisted personnel. The DOD Retirement Board of Actuaries is directed under law (10 U.S.C. 1465 and 1466) to

calculate a single normal cost percentage for active duty service members,³ which is used in figuring retirement costs into each service's personnel budget.

Military retirement has historically been considered more generous and costly than most other retirement systems, including federal civilian retirement systems. However, comparisons are complicated by the need to consider total compensation packages and conditions and risks that are unique to military life. Even with the 1980s reductions, some observers question whether military retirement benefits have the right weight in overall military compensation. The Federal Employees Retirement System (FERS) covers most federal civilian employees who entered service after December 31, 1983. FERS is a three-part pension program that includes social security benefits, an additional defined benefit, and a tax-deferred savings plan with government matching of contributions.⁴ It differs significantly from the Civil Service Retirement System (CSRS), a stand-alone defined benefit system that covers most federal employees hired before 1984. Both the FERS and the CSRS systems have distinct provisions for law enforcement officers and firefighters (referred to in this report as protective service employees). Table 2.1 shows the normal cost percentage incurred by the government and the percentage contribution of the individual for the three military retirement systems in effect and for the different plans under FERS.

³This category includes about 65,000 active National Guard and Reserve members.

⁴The tax-deferred savings plan is a type of defined contribution plan. In these plans, an individual account is established for each participating employee, and benefits are based on contributions to and investment earnings for that account. No exact benefit is promised at retirement. Over the past 2 decades, defined contribution retirement systems have become more prevalent in the private sector, often as supplemental plans to established defined benefit systems. The Thrift Savings Plan (TSP) is the supplementary defined contribution portion of federal employee retirement plans. Such plans are known as 403(B) plans in the state and local government and nonprofit sectors and 401(K) plans in the private sector.

Chapter 2
Military Retirement Costs

Table 2.1: Costs of Selected Retirement Systems as a Percent of Pay (1995)

Retirement plan	Percent of pay^a		
	From employer	From employee	Total
Average military	33.3	0	33.3
Pre-1980	39.3	0	39.3
1980-86	35.0	0	35.0
Post-1986	29.7	0	29.7
FERS without TSP	11.4	0.8	12.2
FERS protective service without TSP	24.3	1.3	25.6
FERS with TSP	15.3	6.8	22.1
FERS protective service with TSP ^b	28.2	7.3	35.5

Note: All employees pay social security taxes of 6.2 percent on the first \$62,700 of earnings, and their employers make matching contributions.

^aNormal costs for the military systems are shown as a percent of basic pay. Since basic pay averages about 72 percent of regular military compensation, normal cost as a percent of regular military compensation is lower than the percentage shown, averaging, for example, about 24 percent for the three military retirement systems.

^bThese figures assume the same TSP participation rate as the average for all FERS employees.

Source: DOD and Office of Personnel Management Actuaries.

Military Retirement's Role in Shaping and Managing the Force

The military retirement system strongly influences the broad shape of the force. The retirement system provides an increasing incentive for service members to stay in the military as they approach 20 years of service and encourages them to leave thereafter, helping DOD to retain midcareer personnel and yielding a relatively young force. However, the system can also impede effective force management. Because military personnel are not entitled to any retirement benefits unless they have served 20 years, the services have been reluctant to involuntarily separate personnel with less than 20 years of service beyond a certain point. Moreover, some analysts, including several roundtable participants, believe the military retirement system is an obstacle to achieving a force of the right size and composition because it provides the same strong career length incentive to all categories of personnel. These analysts maintain that 20 years may not be the optimal career length for all military personnel.

Force Management Objectives of the Military Retirement System

The present practice of allowing normal nondisability retirement on an immediate annuity after 20 years of service evolved from a program designed to aid retention of naval enlisted members to a program covering all of the armed services. Officers and enlisted members of each service were brought under the 20-year retirement umbrella by separate pieces of legislation between 1915 and 1948. The legislative history of these actions shows that Congress established the 20-year retirement to encourage more enlisted personnel to remain in the service longer and eliminate older officers from the service to lessen promotion stagnation problems.

The 5th Quadrennial Review of Military Compensation (QRMC)¹ in 1984 specified the following military personnel management needs that the retirement system promotes:

- a young and vigorous force, with a continuing flow of officers and enlisted personnel through the system;
- military careers that are reasonably competitive with other alternatives; and
- a mobilization base to be called up during a war or an emergency.

This QRMC also identified several principles of military compensation with relevance for evaluating the retirement system, including economic and

¹Mandated by 37 U.S.C. 1008(b), the QRMC is a complete review, every 4 years, of the principles and concepts of the compensation system for members of the uniformed services. The 5th QRMC in 1984 focused attention on the retirement system. The 8th QRMC is evaluating human resource management systems for future military needs.

military efficiency, equity, flexibility, and integration with force management.

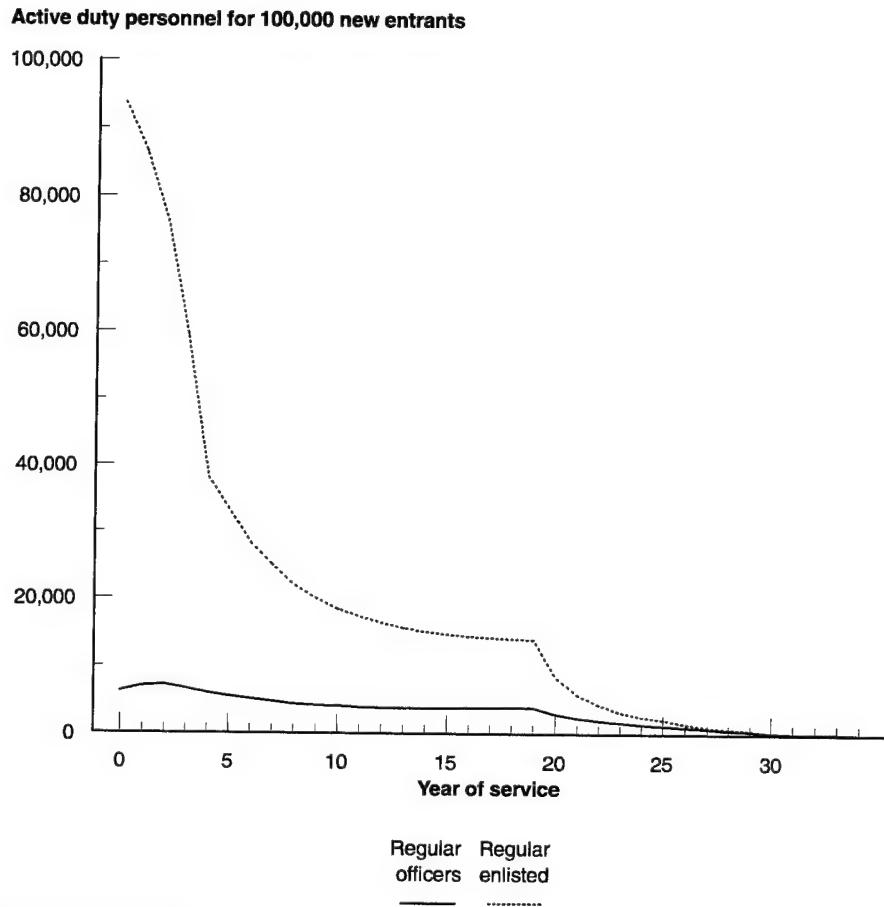
The Retirement System Affects Force Composition

The retirement system, as one aspect of military compensation and force management policy, influences the composition of the force primarily through its impact on a service member's desire to continue military service. Other influences on retention include the general level of pay and allowances; up-or-out nature of the officer personnel management system;² reenlistment policies; special and incentive pays; and satisfaction with conditions of military life, ranging from ship rotation policy to family housing.

The military's unusual personnel structure of a closed hierarchical system—with essentially no lateral entry at upper ranks—provides unique challenges. Because of the lack of lateral entry, shortfalls in numbers of midlength careerists cannot be easily rectified; thus, the compensation system needs to ensure a continual flow of personnel through the ranks. Each year the military recruits and trains many new entrants, most of whom will not make the military a career. The DOD Actuary reports that about 48 percent of new officers and 15 percent of new enlisted personnel attain 20 years of active duty service. Figure 3.1 illustrates average retention patterns across all the services for all personnel categories.

²For officers, the basic elements of personnel management policy are contained in the 1980 Defense Officer Personnel Management Act, which consolidated regulations concerning officer careers and specified the numbers of officers each service can have in the higher grades.

Figure 3.1: Retention Patterns for Active Duty Personnel



The retirement system exerts an increasing "pull" effect on personnel as they approach the 20-year point but a substantial "push" effect thereafter. That is, retention rates for enlisted personnel have historically increased with each successive reenlistment. Similarly, after the initial term of obligated service, officer retention rates tend to increase with each year of service. The retention pull is generally believed to be strong by the 8th to 12th year of service. After 20 years of service, however, the retention rate drops significantly. For example, approximately 36 percent of personnel who attain 20 years of service retire within 1 year of reaching that threshold. In addition to its impact on overall retention, the retirement

system likely affects force characteristics by providing a stronger incentive for some service members to stay than others. For example, because retirement pay is a form of compensation that is of greater value at the higher ranks, some analysts maintain that it particularly encourages the most able to stay in service because they view their promotion chances most favorably.

The “lock-in” effect of the 20-year vested retirement system lessens the impact on retention rates that fluctuations in the private sector employment market would otherwise have. As personnel get closer to the 20-year point, it takes a greater private sector lure to offset the value of the military retirement benefits that would have to be foregone. For example, the percentage of personnel with 10 years of service who reach retirement eligibility has been about 70 percent for enlisted personnel and over 90 percent for officers. Thus, the retirement system has been valuable as a force stabilizer. Highly predictable retention rates beyond the 10th year of service make personnel planning and management considerably easier than if retention rates were influenced more by external labor market forces.

Another way in which the retirement system fosters midlength careerist retention comes from the “push” effect after 20 years. The availability of an immediate annuity means that military personnel are effectively working for reduced compensation after 20 years of service, which prompts many personnel to retire at that point to begin a second career while they are still relatively young. The 20-year retirement option therefore enables more rapid promotion opportunities in the midcareer years, which prevents grade stagnation and increases the attractiveness of remaining in the military.

The Retirement System Can Hamper Effective Force Management

Across DOD, the force has been growing more senior since the early 1970s.³ Some growth in seniority was to be expected after the change to an all-volunteer force because those who entered military service after that time did so by choice. Many defense analysts maintain, however, that the current grade structure and seniority has come about more by happenstance than design. According to our 1991 report, the structure came about as retention improved and the services allowed more

³The percentage of enlisted personnel in the top six grades increased from about 59 to about 72 percent between 1973 and 1994 (and occurred over periods of growth as well as drawdown). Also, officers, as a percentage of the total force, grew from about 11 percent in 1966 to about 16 percent in 1995.

personnel to reenlist than they needed to meet force profile goals.⁴ As RAND's recent study noted, the services' desired force structures reflect the actual retention patterns that emerge as a result of the current compensation system, particularly the retirement system; without the current retirement system, the desired force may differ significantly.⁵ Moreover, since the retirement system operates equally for all categories of personnel, it cannot be used to increase or decrease retention of personnel in particular occupations.

A negative aspect of the military retirement system with respect to force management is that the lack of earlier vesting makes it difficult to separate some personnel. Because of the great financial loss to personnel nearing 20 years of service if they are separated earlier, the services have been reluctant to separate without any retirement benefits all but the worst performers after they have reached the midcareer point.⁶ This difficulty has consequences both for dealing with performance problems and adjusting force size or composition as requirements change. Two of our roundtable participants indicated that, even in the case of a serious breach of conduct, the decision to separate personnel not eligible for retirement is extremely difficult. They also said that many personnel with significant problems are kept until the 20-year point partly because of the implications of preretirement separation for their families.

The recent drawdown required DOD to use a variety of tools, primarily temporary voluntary separation programs, to separate personnel with less than 20 years of service. To reduce the active duty force of 2,174,100 military personnel in 1987 to 1,485,500 in 1996, DOD employed voluntary separation tools, such as Voluntary Separation Incentives (VSI),⁷ Special Separation Benefits (SSB),⁸ and the Temporary Early Retirement Authority

⁴Enlisted Force Management: Past Practices and Future Challenges (GAO/NSIAD-91-48, Jan. 22, 1991).

⁵A Policy Analysis of Alternative Military Retirement Systems, RAND, National Defense Research Institute, 1994.

⁶Title 10 U.S.C. 638a(b)(2)(c) contains a provision that permits officers who have not been promoted and have 18 years of service to remain in the service until they can retire after 20 years.

⁷The VSI program, authorized in 1991, allows the services to pay annuities to eligible service members volunteering to leave the military. The VSI annuity is calculated as 2.5 percent of the member's final month of basic pay multiplied first by 12 and then by the number of years of service. The VSI annuity is paid annually for twice the number of years of service. For example, a staff sergeant, technical sergeant, or petty officer first class with 12 years of service would get an annuity of \$6,249 for 24 years, or a total of \$150,696.

⁸The SSB program, also authorized in 1991, allows the services to make a one-time payment to eligible service members volunteering to leave the military. The SSB payment is calculated as 15 percent of the member's final month of basic pay multiplied first by 12 and then by the number of years of service. For example, a staff sergeant, technical sergeant, or petty officer first class with 12 years of service would get a lump-sum payment of \$37,675.

(TERA) to separate 148,700 personnel. All of these temporary programs are scheduled to expire in 1999. VSI and SSB are targeted programs for overstrength or oversubscribed fields, careers, and military occupational specialties. Individuals with 6 to 20 years of service are eligible for VSI and SSB. The TERA program allows voluntary retirement of members with 15 years of service in personnel categories subject to the discretion of the services.

Some senior DOD officials indicated they would like to have these temporary authorities made permanent because they provide benefits for separating personnel and control over potential losses of critical personnel. Some officials indicated that they did not want TERA after the drawdown because they believed it would result in a constant stream of requests and undermine the concept of the 20-year commitment. The Selective Early Retirement Boards permit the services to exercise authority to select retirement-eligible officers to retire earlier than normal. This program was used to separate 10,420 officers from 1992 to 1995.

Retirement System Assessment Depends on Characteristics of the Desired Force

Assessments of the value of the military retirement system in force management depend on the characteristics of the desired force. One key aspect of desired force characteristics is the optimal length of military careers. The military retirement system implicitly assumes that the optimal career length is the same for all military occupations and that career length should be relatively short due to the high physical demands of military duties. However, some analysts contend that, although some military occupations undoubtedly call for young and vigorous personnel because they entail physically demanding work under harsh conditions, many other occupations do not require exceptionally vigorous duties. Furthermore, in today's more technologically and politically complex military environment, capabilities that peak later in life than physical capabilities, such as experience, knowledge, and judgment, may be more important in many military occupations than vigor. Therefore, the optimal career length is likely to vary by military occupation category, with some that are longer than 20 or 30 years (e.g., acquisition) and some that are shorter (e.g., infantry).

One of the strongest arguments for longer careers for senior military leaders is the increased education and joint operational experience requirements of the modern career.⁹ One of our roundtable participants

⁹The Goldwater-Nichols DOD Reorganization Act of 1986 made service in a joint (multiservice) position a prerequisite for promotion to general or flag officer rank.

strongly advocated lengthening military careers for senior officers and shortening careers for other officers. Under such a proposal, each service would establish a general career length for officers that would be shorter than the current length, possibly ranging from about 12 years for the Army to about 17 years for the Navy. Beyond that point, only a small percentage of officers would be promoted to the next rank, and the career length expectation for those personnel could be greater than 35 years.

Considerable uncertainty exists in the defense community about the size of the future force and its composition. The particular characteristics of the desired force need to be determined to design a retirement system that supports that force, according to several of the roundtable participants. In its 1993 Bottom-Up Review, DOD concluded that by fiscal year 1999 an active force of about 1.4 million personnel, down from about 2.2 million in 1987, would meet national security needs. Current personnel levels for all of the services are based on that assessment. However, future changes in personnel levels are possible. For example, DOD, in response to the 1997 DOD Authorization Act, is planning a review of defense strategy and force structure through 2005.

Several recent studies have examined the mix of skills the future military will need. Joint Vision 2010, for example, prepared by the Chairman of the Joint Chiefs of Staff, describes a future force that relies on smaller, mobile units with more precise weapons and high-technology intelligence gathering, information warfare, and advance training simulators. Also, a recent Army Science Board report concluded that the Army's development of technologically sophisticated officers was lagging behind its needs for the future.

The types of management systems that will support the military's personnel requirements in the post-Cold War environment have been the focus of (1) several studies being carried out by RAND for the Under Secretary of Defense for Personnel and Readiness and (2) the 8th QRMC. RAND's study of alternative career management systems for officers examined several alternative officer career flows and their potential for meeting DOD's objectives.¹⁰ The study generally concluded that the benefits of uniformity need to be balanced by a capacity for flexibility in the management of officer careers. The types of officers the services need may be increasingly varied. One example of a proposal the study described is an officer management system that would substantially increase the

¹⁰Future Career Management Systems for U.S. Military Officers, RAND, National Defense Research Institute, 1994.

Chapter 3
Military Retirement's Role in Shaping and
Managing the Force

number of officers forced to leave at the 5- and 10-year service points but would encourage longer careers for those who remained. A preliminary conclusion of the 8th QRMC review of the principles of military management and compensation is that uniformity of human resource management systems among all DOD organizations is not desirable because the various DOD communities have different strategies and therefore should also have their own human resource management systems.

Options for Modifying the Military Retirement System

Many changes to the military retirement system have been previously suggested and analyzed, including several proposed at the roundtable discussion we hosted. Some of these changes would modify or add to the current system, whereas others would completely replace the current defined benefit system. A common feature of suggestions for modifying the current system, which was generally supported by our roundtable participants, is earlier vesting.¹ Analysis suggests that some types of earlier vesting could be offered with little or no increase to DOD's retirement costs, although the ultimate cost impacts to DOD depend on retention and force composition effects. Some analysts, including several roundtable participants, have called for more far-reaching structural changes to the retirement system, possibly with other changes in compensation and personnel policy, to accommodate different career lengths for different personnel. These changes could increase effectiveness or reduce costs through yielding a force of a different composition and size than today's force.

Several Features Targeted for Change

Several features of any retirement system that could be considered for change include the following:

- the specific type of system—defined benefit, defined contribution, or both;
- the benefit accrual formula;
- the formula for inflation adjustments;
- the amount employees can contribute, the level (if any) of matching contributions, and investment options for a defined contribution system;
- the point at which benefits are paid; and
- the amount of time until employees are vested in benefits.

One or more of these features can be modified to adjust the current system or create a complete alternative. The features to be changed, of course, depend on the objectives to be fulfilled. For example, the 1980 and 1986 changes to the military retirement system were designed primarily to reduce the system's cost and thus affected the benefit accrual formula, calculation base, and adjustments for inflation. The 1986 changes had the additional objective of increasing the incentives to continue in service for 30 years. Neither legislative change affected the system's other features, such as the time benefits are paid, the amount of time until service members are vested, or the nature of the system as a defined benefit system exclusively.

¹In this report, the term vesting refers to a service member's right to receive some retirement benefit, whether the benefit is paid immediately or deferred.

Recent suggestions for changing the military retirement system, including those put forth during our roundtable discussion, have generally focused on improving force management and making the system more attractive or fairer to service members. Analysis of these changes focuses on two types of management impacts. The first is the potential for DOD to reduce cost or enhance effectiveness by increasing its ability to manage a given force through separating poor performers and adjusting force size or composition as needs change. The second concerns whether DOD could design policies and incentives, including those for retirement, that better yield the force needed, including one with career types and lengths that differ across military occupations. Most roundtable participants believed that the 1980 and 1986 reforms made reducing retirement accrual costs a less compelling motivation than it had been, although several stated that pressures on the defense budget would cause continued examination of all personnel costs.

Analysis of Selected Modifications to the Current System

Most of our roundtable participants supported changing the military retirement system to provide some benefits to personnel who serve less than 20 years. A common feature of several proposals is that members would be vested earlier in a portion of their retirement benefits so that the sharp rise in the value of military retirement benefits at 20 years of service would be somewhat leveled. One proposal for vesting benefits earlier was adding a deferred annuity for those retiring with less than 20 years of service. This change would reduce costs by deferring receipt of the benefit until, for example, age 62 and maintain most of the current incentive for personnel to remain for 20 years.

Several roundtable participants proposed adding a tax-deferred savings plan, similar to the 401(K) plans commonly available to workers in the private sector, to the current defined benefit system. This change could also include some government matching of service member contributions. Although a tax-deferred savings plan without government matching might not be considered to constitute earlier vesting, it does provide a way for personnel to acquire some additional long-term savings. Some participants noted that this option could offset the limited opportunity service members have to build equity in a home, although others commented that most enlisted personnel would have little extra income for a tax-deferred savings plan.

The DOD Actuary, at our request, estimated the impact on retirement accrual costs as measured by the normal cost percentage of several

options, all of which retain the basic feature of allowing retirement with an immediate annuity after 20 years. The options selected for analysis reflect previous proposals and suggestions from roundtable participants. The options, which are fully detailed in appendix II, are

- adding a deferred annuity (or equivalent lump-sum separation payment) to the current system for service members separating with between 10 and 20 years of service, either not adjusted for inflation (option 1A) or adjusted for inflation (option 1B);²
- adding a tax-deferred savings feature, with no government matching, to the current system (option 2);
- adding a tax-deferred savings feature, with government matching, to the current system (option 3); and
- vesting members at 10 years of service in a retirement annuity that is based on years of service and gradually shifts from being deferred to being received as an immediate annuity with 20 years of service (option 4).

The Actuary's estimates of the impact of options 1, 2, and 3 on DOD's budgetary cost for military retirement are shown in table 4.1. These estimates assume the modifications do not change retention patterns and do not reflect any potential changes in other DOD costs.

Table 4.1: Accrual Cost Measured as Normal Cost Percentages of Current Military Retirement System and Options 1 Through 3

Retirement system	Normal cost as a percentage of basic pay
Post-1986	28.0
Option 1A—deferred annuity without inflation adjustment	28.3
Option 1B—deferred annuity with inflation adjustment	28.7
Option 2—deferred savings plan without government matching	28.0
Option 3—deferred savings plan with government matching	31.5

Source: DOD Actuary.

Adding a deferred annuity (options 1A and 1B) for those who separate early increases retirement accrual costs by less than 1 percent of basic pay. Cost increases are small because relatively few service members

²Rather than deferring benefits for service members leaving the military with less than 20 years, the government might choose instead to offer a lump-sum separation payment of equivalent value. In fact, the strong preference service members indicated for a lump-sum separation payment when choosing SSB over VSI during the drawdown period indicates that DOD would likely find the present value of lump-sum separation payments to be less costly than annuities. Our analysis assumes the lump-sum and deferred annuity are of equal value and is not affected by the differences between these two types of benefits.

separate between 10 and 20 years of service and the value of the benefit for an individual service member is low. Adding a tax-deferred savings feature (option 2) to the current retirement system does not increase DOD's retirement accrual costs if there is no government matching of contributions. Option 3 increases accrual costs because of the government's matching contributions to the tax-deferred savings plan. The Actuary also calculated that, for DOD to match service members' contributions under option 3 without an increase in the normal cost percentage, the value of the defined benefit portion of the plan would need to be reduced by about 11 percent.

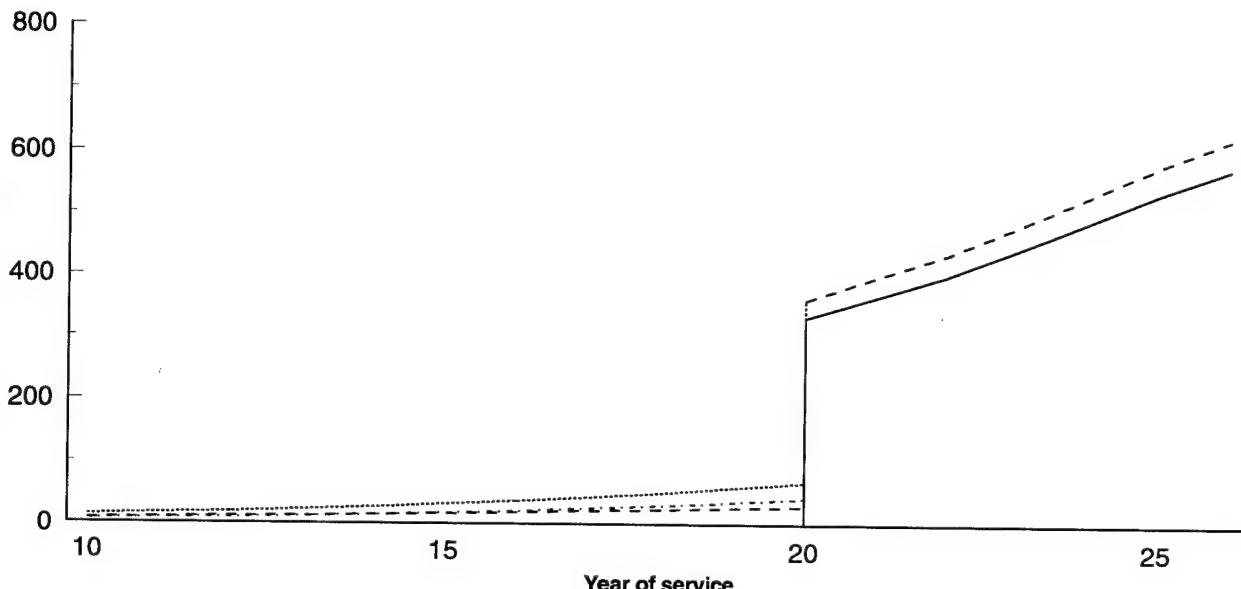
Service members' contributions to a tax-deferred savings account that do not increase DOD's retirement accrual costs would, however, have a near-term cost to the government in terms of a reduction in tax revenues. However, contributing members will eventually owe taxes on their contributions and earnings. These deferred taxes offset much of the near-term cost to the government.

Our analysis suggests that DOD could offer some earlier vesting of a portion of retirement benefits without significantly raising retirement costs. However, the previous options are unlikely to substantially increase force management flexibility. Figure 4.1 illustrates the pattern of the value of future retirement benefits, under the post-1986 system and options 1 and 3, for an officer leaving the military after different years of service. The present value of option 3 as illustrated reflects the government's matching contributions to a tax-deferred savings plan and not the service member's contributions or tax benefits. Since option 2 has no additional government contribution, it is not illustrated.

Chapter 4
Options for Modifying the Military
Retirement System

Figure 4.1: Value of Officer Future Retirement Benefits According to Years of Service Under the Current System and Options 1 and 3

1995 dollars in thousands



Post-1986 Option 1A Option 1B Option 3

Note: The values reflect the average pay history of a representative officer at different years of service. The values represented are present values, that is, the value of the future income stream discounted to reflect the time value of money. A real personal discount rate of 5 percent is used in the calculations. The real personal discount rate is the rate at which individuals trade current for future dollars after inflation adjustments. Using a higher discount rate in the analysis, based on evidence that service personnel strongly discount the value of future compensation, would lower the present values illustrated but would not substantially affect the patterns observed.

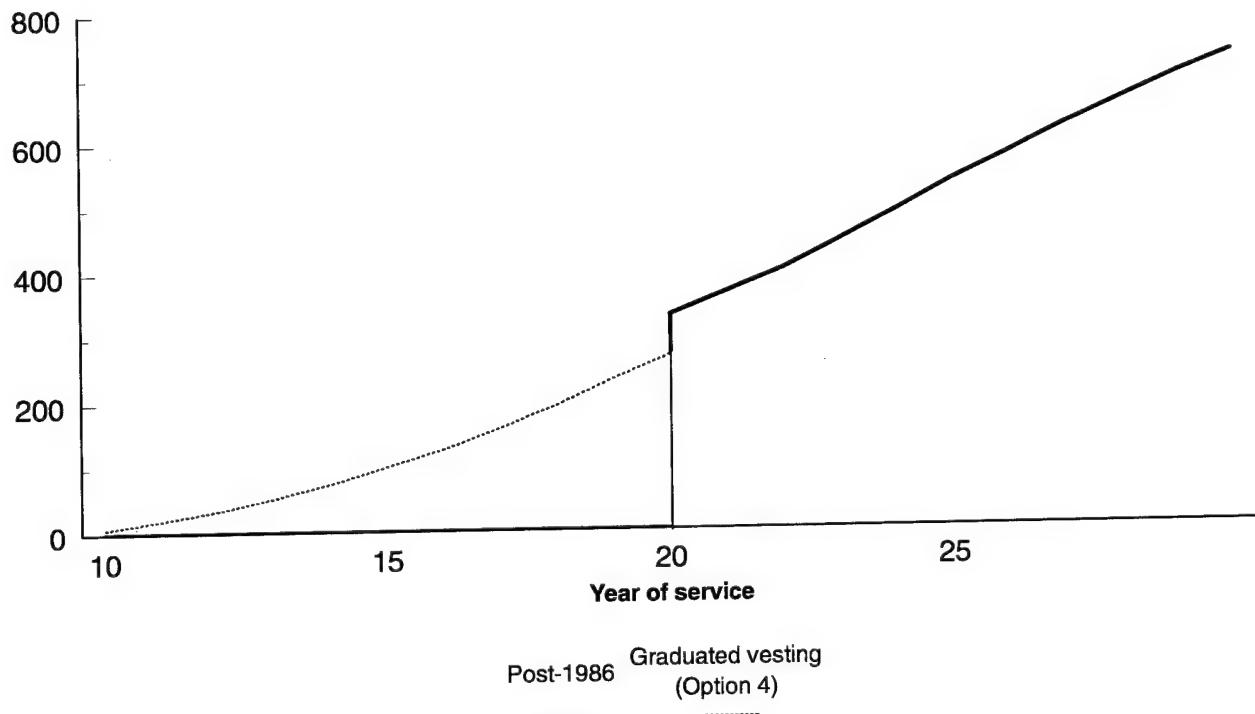
These modifications to the post-1986 system do not substantially alter the sharp increase in the value of retirement benefits at 20 years of service, although members who serve less than 20 years can receive some retirement (or tax-deferred savings) benefits under the options. Some analysts have thus questioned the desirability of earlier vesting options such as options 1A and 1B because they involve some additional cost to DOD and may not significantly increase DOD's management flexibility. Other analysts, including some roundtable participants, have maintained that

limited earlier vesting options are in fact desirable because they offer some benefit to members separating with less than 20 years at very low cost.

The DOD Actuary estimated cost impacts of an additional earlier vesting option that, unlike options 1 through 3, would lessen the sharp increase in the value of benefits at 20 years of service and thus decrease the difficulties associated with separations for individuals with less than 20 years of service. Figure 4.2 illustrates the impact of this modification on the present value of retirement benefits at different years of service compared with the post-1986 system.

Figure 4.2: Value of Officer Future Retirement Benefits According to Years of Service Under the Current System And Option 4

1995 dollars in thousands



Note: See note in figure 4.1 for information on the values illustrated. The graduated vesting option specified here does not completely smooth the pattern of the value of benefits at the 20-year service point.

Instituting the change as specified in option 4 would increase retirement accrual costs from 28 to approximately 29.9 percent if retention behavior were unchanged, according to the DOD Actuary's analysis. The increased cost represents payment of partial retirement benefits to some personnel who are presently leaving before 20 years of service without benefits. However, because the incentive for service members to stay to 20 years is substantially reduced under this option, it is unlikely that current retention patterns would continue. Thus, we asked the DOD Actuary to estimate retirement accrual costs with changes in retention patterns. The Actuary found that a 25-percent reduction in the probability that a service member would stay 20 years (with increased exits spread evenly between 10 and 20 years of service) would reduce the normal cost percentage to 24.7 percent and a 10-percent reduction would reduce normal cost to 26.7 percent.

This estimated decline in normal costs under graduated vesting results from the lower value of retirement benefits received by those service members who would normally be expected to stay in service at least 20 years but are assumed to leave with between 10 and 20 years of service. Thus, our analysis shows that the reduced value of retirement benefits to service members who leave earlier because of graduated vesting more than offsets the increase in benefits paid to service members who would normally have left with between 10 and 20 years of service under the post-1986 system.

Our analysis of a graduated vesting option illustrates that the impact on retirement costs largely depends on the impact on retention patterns. Since retention patterns affect force seniority, significant changes in retention patterns would result in a more junior force.³ There could also be changes in personnel quality or work effort, according to some analysts. If DOD wanted to maintain a certain level of seniority or personnel quality with a substantially smoother vesting pattern of retirement benefits, changes in other aspects of compensation or personnel policy might be required, and these changes would have their own cost implications. Pay raises or other incentives could, for example, offset to some extent reductions in retirement costs. Even if a more junior force were desired, some adjustments in pay or incentives might be required to retain certain individuals.

³Changing the seniority profile of the force would have implications for other aspects of personnel costs. For example, training costs would likely be higher due to more accessions.

Proposals for Fundamental Retirement System Changes

Some analysts have called for major structural changes to the military retirement system, possibly along with other changes in compensation and personnel policy, in part to better accommodate different career lengths for different categories of personnel. Such changes include placing military personnel under a system similar to FERS and having retirement systems that vary, for example, by service, officer and enlisted status, or occupation and optimal career length. One suggestion offered at the roundtable was to maintain the current system for occupations requiring youth and vigor, except for a modification to provide earlier vesting of benefits, and place other military personnel under a system similar to FERS. Among the roundtable participants who advocated major retirement system changes, two views prevailed. One view was that designing the right retirement system required determining the kind of force DOD was trying to build toward. The other view was that such foresight was unlikely and that a retirement system was needed that could accommodate changes in circumstances and needs.

Predicting the cost and other impacts of more substantial changes to the military retirement system is difficult. The DOD Actuary did not estimate the cost of any military retirement alternatives that completely eliminated the payment of an immediate annuity after 20 years of service because of the complexities of predicting the behavioral impacts of such a substantial change. One concern voiced by several of the roundtable participants was that even the most sophisticated analysis may be a poor predictor of the effects of such changes.

These complexities are illustrated in recent analyses of alternatives to the current military retirement system. The RAND Corporation designed a computer simulation model of retention behavior with data on Army personnel to predict the impacts of substantial retirement system changes. In addition to modeling retention effects, RAND also predicted impacts on how hard individuals work and the likelihood that the most capable personnel would stay and seek advancement. RAND used this computer simulation model in its 1994 evaluation of a military retirement system with the following features: (1) service members with at least 10 years of service would be vested in a deferred annuity based on years of service and high three basic pay that would be available at age 60 and (2) members separating after 10 years of service could receive a separation payment based on years of service and final basic pay. Also, under this system the services could vary eligibility for the separation payments to control career lengths in different skills. RAND found that maintaining a force of the current size and quality under that system would

require an active duty pay raise and overall compensation costs, including retirement, would be higher by about \$800 million per year compared with the post-1986 system.

Placing military personnel under a retirement system similar to FERS could save DOD \$2.4 billion per year and maintain a given size and quality force, according to a 1996 RAND study that used a similar modeling approach.⁴ If improved efficiencies allowed some reduction in force size for a given level of effectiveness, savings could be greater. The system RAND analyzed includes a defined benefit plan, a defined contribution plan, and social security benefits. The defined benefit annuity formula and the provisions for government matching of TSP contributions would be the same as that for FERS general employees. Because retirement benefits would be considerably less generous than under the current system for those who separate with 20 or more years of service, the RAND analysis provided for an active duty pay raise that was sharply skewed toward the upper grades. The system also included separation payments. The increase in basic pay costs and the costs of separation payments were more than offset by retirement cost savings, according to the study.

Conclusions

Modifications to the military retirement system could make the system more attractive to many service members and increase management efficiencies at little additional cost to DOD. Certain changes, such as offering some type of retirement benefit to members serving less than 20 years, may be worth careful analysis for implementation in the short term.

Evaluation of the costs and benefits of more substantial restructuring of the military retirement system must be done in the context of overall force needs. As U.S. forces adapt to new challenges and budgetary pressures continue to require increased efficiencies in all federal spending, the role of the military retirement system as one tool in managing and shaping the force is likely to come under increased scrutiny. Although retirement budgetary costs have declined, the rigidities of the system may be inconsistent with fostering the most effective force possible. As DOD evaluates the size and type of military it wants to build, the retirement system is an important personnel policy to be considered.

⁴Reforming the Military Retirement System, RAND, January 1996 draft report.

Agency Comments

DOD provided written comments on a draft of this report, which appear in appendix III. DOD stated that it did not object to the overall thrust of the report but did, however, express concern that the report's discussion of potential changes to the retirement system could be taken to suggest a consensus on specific shortcomings of the system.

DOD emphasized the overall effectiveness of the retirement system in providing the military with needed personnel and stated that the impact of 1980 and 1986 changes to the system should be fully assessed before further changes are made. DOD also believes that any changes eventually made to the retirement system must apply only to new entrants to avoid breaking faith with service members. In addition, DOD believes that an immediate annuity for members completing at least 20 years of active military service is an essential feature of the system that must be maintained.

DOD identified several issues it believes merit great weight in considering whether and how the military retirement system should be changed. These issues included DOD's beliefs that (1) the current system has been effective in retaining experienced personnel while simultaneously avoiding stagnation among senior personnel; (2) the existing retirement system, augmented by temporary authorities established for the ongoing force drawdown, has provided adequate flexibility in managing force levels; (3) the 1986 changes to the retirement system increase the incentive for service beyond 20 years; (4) changes to the retirement system, such as those discussed in our report, could result in increased cost of other programs; and (5) changes in the retirement system are not needed to allow DOD to adequately vary career lengths according to specialty, given other available compensation and management tools. We agree that these are important factors and perspectives in evaluating the military retirement system and possible changes and believe they are appropriately discussed in the report.

DOD also expressed concern about the report's discussion of proposals to (1) gradually vest service members in retirement benefits and (2) place military personnel under a retirement system similar to FERS. We presented those options to include the full range of views and suggestions reflected in our roundtable discussion. We also pointed out that substantial changes to the retirement system would involve significant uncertainties and require thorough evaluation.

Summary of GAO's Military Retirement Roundtable Discussion

Our June 12, 1996, roundtable discussion was structured around three questions that reflected those aspects of the military retirement system included in our review:

- How does the military retirement system shape the force and does it provide enough flexibility for managing the force?
- Could changes in the retirement system result in cost savings for the Department of Defense (DOD)?
- What types of changes to the military retirement system most merit further analysis?

A summary of the discussion and a list of the roundtable participants follow. The comments presented are the opinions of the individuals but not necessarily the agencies or organizations they represent.

Force Composition and Management Flexibility

The participants generally agreed that the military retirement system plays a strong role in shaping today's force, although some noted that the system cannot shape the force very precisely. One participant stated that the important question was whether retirement shapes the force in a way that is desirable. DOD's rules and regulations for compensation, including the retirement system, are not producing the kind of personnel structure that is wanted for the 21st century, according to several participants. An example of a need, cited by several participants, that is not met by the current system is longer careers.

The participants acknowledged that the military retirement system is not the sole compensation factor or driver that shapes the force. Military retirement has a tremendous influence on people beyond a certain point—perhaps the first enlistment or 5 to 10 years of service—by pulling them toward 20 years of service, which enables the military to retain sufficient people. The participants reiterated throughout the discussion that the military retirement system cannot be evaluated without considering total military compensation or the prevailing conditions in the rest of society. One participant said that private sector employment is a relevant consideration because the military must compete with that sector to retain people.

Some participants disagreed about whether the military retirement system was sufficiently flexible. Several said that the retirement system was not suited to the services' needs for different career lengths among occupations. One noted that optimal career lengths may differ

considerably for officers and enlisted personnel. One participant proposed lengthening military careers for senior officers and shortening careers for other officers. One participant noted that personnel under the current system could be required to serve 30 years before receiving retirement benefits, although DOD has not used that option. Other participants pointed to the use of temporary separation authorities to facilitate the recent drawdown as evidence of flexibility within the current system.

Many participants considered the system's 20-year vesting unfair and an impediment to the effective management of personnel. For example, the current system creates difficult management decisions in specific individual situations because of its rigidity. The participants disagreed about whether the treatment of individual cases, such as the discharge of an officer with about 19 years of service convicted of a serious offense in a civilian court, provided a strong argument for changes in the military retirement system. One participant suggested as stronger evidence of a problem with the system the financial implications of discharging a service member who had 18 years of service but had not been promoted.

Cost

A range of views were expressed by the participants regarding the cost of the military retirement system. Participants remarked that the cost of the system (measured by its normal cost percentage) has decreased substantially over the past 10 years. Participants pointed out that retirement accrual costs have fallen not only because of reduced retirement benefits but also because the DOD Actuary updated actuarial and economic assumptions. Some participants were surprised that the move to accrual accounting, under which the services' budgets reflect the retirement costs of current personnel, had not resulted in the services focusing more on the cost of military retirement.

Several participants said the services might not have increased their focus on retirement costs partly because an aggregate retirement accrual cost is calculated for personnel across all services. They said that, because the underlying determinants of retirement accrual costs vary, the aggregate accrual charge does not reflect in the services' budgets the true retirement costs of their own personnel. Several participants expressed support for having accrual costs calculated separately for each service and for officers and enlisted personnel. One participant expressed the view that this change would require legislation.

Several participants cautioned against comparing military and civilian retirement costs because military service differs significantly from civilian occupations and personnel management. Some panelists noted that the true indicator of the adequacy of retirement benefits, along with other aspects of compensation, is whether the services can attract and retain the personnel they need.

Several participants said that federal budget pressures will continue to focus attention on DOD's struggle to control all types of spending, including personnel compensation costs. Participants referred to tensions within DOD between military personnel costs and other resource needs. One participant said that lifting the legislation that restricts the services' control over separate categories of funding would enable the services to better balance their compensation needs with their operational, training, and procurement priorities and needs.

Some participants commented that earlier vesting would raise costs. Others stated that the impact on costs depended on the specific details of the retirement vesting scheme. According to some participants, earlier vesting might aid the services in separating nonproductive personnel before 20 years of service. That could save costs, according to one participant. A participant noted that earlier vesting options had been proposed for years and not come about because the services did not believe the options proposed would give them additional flexibility in managing the force.

The participants addressed the issue of grandfathering retirement system changes, that is, applying changes only to new entrants. Several panelists asked whether DOD could end grandfathering as a way to achieve greater cost reductions. Others stated that grandfathering was essential to avoid breaking faith with service members.

Modifications for Consideration

Participants offered specific suggestions for changes to the retirement system. Most believed that some modification to the current system, such as earlier vesting, was a good idea. However, three participants voiced specific concerns about force management impacts, particularly the impact of earlier vesting on retention. Participants also expressed reservations about making modifications before DOD knows the impact of the 1980 and 1986 changes.

Several participants proposed or expressed support for adding a defined contribution component—a 401(K)-type plan—to the current defined benefit system, and one observed that the option of a tax-deferred savings plan is available to most federal civilian employees. However, some participants noted that most enlisted personnel have little extra income for savings. Other specific suggestions were

- adding provisions for earlier vesting in an annuity that would begin at age 62 or 65;
- making temporary early separation authorities permanent;
- vesting personnel in a small benefit, such as a deferred annuity, starting between 5 and 10 years of service and increasing the size of the benefit until it matches the value of the immediate annuity after 20 years of service; and
- providing a choice between receiving full credit for each year of service toward the current retirement benefit or receiving government contributions to a 401(K)-type plan.

Some participants questioned whether the basic objective of providing incentives for 20- to 30-year careers for all personnel remained valid and suggested that fundamental and broader changes to the system might be needed. Most participants agreed that these changes must be viewed in the long term. Suggestions included placing military personnel under a system similar to the Federal Employees Retirement System (FERS) or having different retirement systems with varying career lengths for different categories of personnel. Participants pointed out that uniformity only exists now in terms of the benefit formula. Individuals can depart from service with vastly different pensions. One participant suggested (1) maintaining the current system for occupations requiring youth and vigor but modifying it to provide some earlier vesting of benefits and (2) placing all other military personnel under a FERS-type system.

Two views were expressed regarding the information necessary to justify fundamental and broader changes to the retirement system. One view was that designing the right retirement system required first determining what kind of force DOD is trying to build. The other view was that such foresight was unlikely and that a retirement system was needed that could accommodate changes in circumstances and needs. Several participants noted that past changes in the retirement system have been forced on DOD, even if they have eventually been viewed favorably. One participant stated that any change has to be forced on an institution from outside. A participant said that DOD could take some risks now in making substantial

Appendix I
Summary of GAO's Military Retirement
Roundtable Discussion

changes to the military retirement system (without knowing the impact of the 1980 and 1986 changes) because of the potential for future downsizing.

Participants

Paul Arcari	Colonel, U.S. Air Force (Retired) and Director, Government Relations, The Retired Officers Association. Formerly a member of the Air Force's Directorate of Personnel Plans (1973-85) and Assistant Director for Compensation Studies in the Office of the Secretary of Defense (1968-73).
David Chu	Director of the RAND Corporation's Washington Office and Associate Chairman of RAND's Research Staff. Formerly Assistant Secretary of Defense for Program Analysis and Evaluation (1988-93) and Director of Program Analysis and Evaluation in the Office of the Secretary of Defense (1981-88).
Robert Goldich	Specialist in National Defense, Foreign Affairs and National Defense Division, Congressional Research Service. Formerly Head of the Manpower and Budgets Section, Congressional Research Service.
Toni Hustead	Chief, Veterans Affairs Branch, Office of Management and Budget. Formerly Chief Actuary in the Office of the Secretary of Defense (1979-89).
Christopher Jehn, Moderator	Senior Vice President, ICF Kaiser International, Inc. Formerly Assistant Secretary of Defense for Force Management and Personnel (1989-93), Vice President of the Center for Naval Analyses (1981-89), Director of the Marine Corps Operations Analysis Group (1979-81), and Director of the Institute of Naval Studies (1977-79).
Lawrence Korb	Director of the Center for Public Policy Education and Senior Fellow in the Foreign Policy Studies Program at the Brookings Institution. Formerly Assistant Secretary of Defense for Manpower, Reserve Affairs, Installations, and Logistics (1981-85).

Appendix I
Summary of GAO's Military Retirement
Roundtable Discussion

Frederick Pang	Assistant Secretary of Defense for Force Management Policy.
Martha Patterson	Director of Employee Benefits Policy and Analysis for KPMG Peat Marwick.
Bernard Rostker	Assistant Secretary of the Navy for Manpower and Reserve Affairs. Formerly Director of the Defense Manpower Research Center, RAND National Defense Research Center (1990-94); Director of the Force Development and Employment Program, RAND Arroyo Center (1984-90); and Director of the RAND Manpower Personnel and Training Program (1972-77).
Francis Rush, Jr.	Principal Deputy Assistant Secretary of Defense for Force Management Policy.
Theodore Stroup, Jr.	Lieutenant General and Deputy Chief of Staff for Personnel, U.S. Army. Formerly Director of Program Analysis and Evaluation (1992-94) and Director for Military Personnel Management, Office of the Chief of Staff (1989-92).

Selected Retirement System Options

The DOD Actuary, at our request, estimated the impact on retirement accrual costs, as measured by the normal cost percentage, of several options. All of the options retain the basic feature of allowing retirement with an immediate annuity after 20 years. They also reflect previous proposals and suggestions from roundtable participants. The options are adding a

- deferred annuity for persons leaving with less than 20 years of service (options 1A and 1B),
- tax-deferred saving plan without government matching (option 2),
- tax-deferred savings plan with government matching (option 3), and
- graduated vesting schedule for persons leaving with less than 20 years of service (option 4).

Options 1A and 1B

Deferred Annuity for Persons Leaving With Less Than 20 Years of Service

This option includes two possible types of benefits in the form of a deferred annuity for members who leave the military with at least 10 years of service. One proposal (1A) does not adjust for inflation before age 62; the other proposal (1B) adjusts for inflation. Benefits for members serving 20 years or more would be the same as under the current system—paid as an immediate annuity.

Benefit formula: Same as the post-1986 military retirement benefit formula.

Calculation base: Average of the highest 3 years of basic pay.

Timing of benefit receipt: Payable at age 62.

Eligibility: All persons separating with 10 or more years of service.

Other considerations: 1A—The benefit is not indexed for inflation between the time of separation and age 62, but annual increases based on the consumer price index minus 1 point (2.5 percent) are included after age 62.

1B—The indexed benefit assumes the consumer price index minus 1 point (2.5 percent) cost-of-living adjustments during the deferral period as well as after age 62.

Actuary output: The Actuary provided the changes in the normal cost percentages for this alternative under the assumption that only new entrants to the military would be eligible. The normal cost percentages for the post-1986 system, the non-indexed alternative, and the indexed alternative were 28, 28.3, and 28.7 percent, respectively.

Option 2

Tax-Deferred Saving Plan Without Government Matching

All personnel who serve a minimum of 20 years would receive benefits as specified by the current military retirement system. In addition, individuals would be allowed to participate in a Thrift Savings Plan-type benefit, contributing up to 5 percent of their pay, but the government would not provide matching contributions. The income tax on the money set aside would be deferred.

Contribution level: Up to 5 percent of basic pay at the initiative of the individual.

Timing of benefit receipt: Available at age 62.

Eligibility: Immediately, or with 1, 5, or 10 years of service.

Other considerations: Federal government experience shows a 4.1-percent deferral rate and a 50-percent participation rate.

Actuary output: The Actuary projected contributions to a Thrift Savings Plan-type benefit for service members that meet a minimum service requirement. With service members eligible to contribute immediately contributions are projected to reach about \$3.1 billion. The projected contributions for a 10-year minimum service requirement reach about \$1.5 billion. These amounts are not adjusted for inflation.

Option 3

Tax-Deferred Savings Plan With Government Matching

This option is a combination of both a defined benefit and defined contribution plan. All personnel who serve a minimum of 20 years would receive benefits as specified by the current system. In addition, individuals would be allowed to participate in a Thrift Savings Plan-type benefit, with government matching. Matching rules are identical to those of the Thrift Savings Plan under FERS.

Timing of benefit receipt: Defined contribution with government matching benefit payable at age 62.

Eligibility: Personnel are immediately eligible to contribute.

Other considerations: The contribution rate is 5 percent with under 1 year of service to 7 percent at 20 years of service. The participation rate is 50 percent with under 1 year of service to 90 percent at 20 years of service.

Actuary output: The Actuary estimated that this option would increase normal cost to 31.5 percent, if the current defined benefit formula were not changed. The Actuary also estimated that, to maintain normal costs of 28 percent, a reduction in the defined benefit formula multiplier of about 11 percent would be required.

Option 4

Graduated Vesting Schedule for Persons Leaving With Less Than 20 Years of Service

All personnel who serve a minimum of 20 years would receive benefits as specified by the current system. Personnel who serve between 10 and 20 years are vested in an annuity based on the current military retirement formula. The benefit is a deferred annuity at 10 years of service and becomes a combination of an immediate annuity and deferred annuity until the entire benefit is an immediate annuity at 20 years of service.

Benefit formula: 2 percent of basic pay times years of service times calculation base. (As specified here, the annuity for those with 10 to 20 years of service does not include the restoral of value at age 62 that is a part of the post-1986 system.)

Calculation base: Average of the highest 3 years of basic pay.

Timing of benefit receipt: Combination of deferred and immediate annuity. The deferred benefit is payable at age 62. The mix of the immediate and deferred benefit changes with years of service. After 10 years of service, the benefit is entirely deferred. The immediate annuity percent increases gradually to 100 percent at 20 years of service.

Eligibility: All persons with 10 to 20 years of service.

Other considerations: The benefit is not indexed for inflation between the time of separation and age 62, but annual increases based on the consumer price index minus 1 point (2.5 percent) are included after age 62.

Adjust decrement rates by reducing the number of members exiting at 20 years of service by 25 percent. Distribute exit among 10 to 19 years of service.

Actuary output: The Actuary provided an estimate of the cost of adding a mixed immediate and deferred annuity for members who separate with between 10 and 20 years of service. The normal cost percentage for this option, with the adjusted decrement rate, is 24.7 percent. If retention behavior were unchanged, normal cost would be 29.9 percent.

Comments From the Department of Defense



OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE
4000 DEFENSE PENTAGON
WASHINGTON, DC 20301-4000



FORCE MANAGEMENT
POLICY

30

Mr. Mark E. Gebicke
Director, Military Operations and Capabilities Issues
National Security and International Affairs Division
U.S. General Accounting Office
Washington, D.C. 20548

Dear Mr. Gebicke:

This is the Department of Defense (DoD) response to the General Accounting Office (GAO) draft report, "MILITARY RETIREMENT: Possible Changes Merit Further Evaluation" (GAO code 703128/OSD Case 1240). DoD does not object to the overall thrust of the draft report. DoD does have concerns that several of the changes to the military retirement system discussed in the report could be taken to suggest a consensus on specific shortcomings of the system.

DoD believes it is appropriate that the report makes no recommendations. The overall effectiveness of the military retirement system is demonstrated in that it continues to provide the Armed Forces with the required numbers of quality personnel who possess the skills and experience necessary to meet national security requirements. The Department believes the retirement system, significantly revised by the 1980 and 1986 changes, must be allowed to stabilize so that the impact of these changes can be assessed before any further changes are enacted which could seriously affect force retention.

Discussions concerning the cost of military retirement or budget constraints must recognize the changes to the military retirement system made over the last 15 years. These changes have reduced the value of retirement benefits for new service members by approximately 25 percent and thus, in conjunction with reduced manpower levels, have substantially reduced the accruing liabilities for military retired pay.

DoD believes that, consistent with past legislative actions, changes to the military retirement system should apply only to new entrants so that the changes do not affect the terms under which a service member began his or her career. This is essential to maintain faith and trust with our service members. DoD also believes that an immediate annuity for members completing 20 or more years of active military service is an essential feature of the system and must be retained. This feature is critically important to the Services' ability to retain needed numbers of trained and experienced mid-career level personnel in the face of the uncertainties and sacrifices inherent in military service. This draw gives the Armed Forces the tool needed for a stable personnel force, yet offers members a reasonable expectation of some level of economic security within a tolerable time horizon.



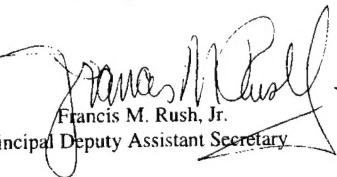
Appendix III
Comments From the Department of Defense

The Department is concerned that the options set out in the draft report and report language that relates to these options infer that the Armed Forces need tools to enable them to vary career lengths according to specialty. Varying how benefits accrue and vest would only complicate the retirement system. Compensation and personnel management approaches can achieve this result more efficiently and with less force turbulence. DoD believes that significant uncertainties would accompany any substantial change to the military retirement system. Consequently, we are concerned that the report presents an option to gradually increase vesting after 10 years and an option similar to the Federal Employees Retirement System (FERS). As the draft report states, the prediction of cost and other impacts of retirement system changes is difficult partly because of uncertainty about retention impacts. Therefore, the DoD is concerned with the discussion of these options absent any substantive discussion or analysis of the potential impacts of such options on the force structure needed to ensure readiness.

The DoD also believes that any discussion of options must take into account: (1) the productivity of the current retirement system in retaining experienced members while simultaneously avoiding stagnation among senior members, (2) how the existing set of retirement systems are being used in conjunction with temporary authorities to manage force levels in the on-going force drawdown, (3) the potential effects of the 1986 change to the military retirement system, specifically in terms of the increased incentive for service well beyond 20 years, and (4) the strong possibility that increased costs in other programs would be needed to complement changes to military retirement such as those mentioned in the draft report.

The Department appreciates the opportunity to comment on the draft report. Specific technical comments on the draft report have been provided to your staff.

Sincerely,


Francis M. Rush, Jr.
Principal Deputy Assistant Secretary

Major Contributors to This Report

**National Security and
International Affairs
Division, Washington,
D.C.**

Sharon Cekala
Celia Thomas
Penny Berrier
William Beusse
Karen Blum
Charles Perdue
Laura Talbott

**Office of the Chief
Economist**

William McNaught

**Office of the General
Counsel**

Ernie Jackson

Ordering Information

The first copy of each GAO report and testimony is free. Additional copies are \$2 each. Orders should be sent to the following address, accompanied by a check or money order made out to the Superintendent of Documents, when necessary. VISA and MasterCard credit cards are accepted, also. Orders for 100 or more copies to be mailed to a single address are discounted 25 percent.

Orders by mail:

**U.S. General Accounting Office
P.O. Box 6015
Gaithersburg, MD 20884-6015**

or visit:

**Room 1100
700 4th St. NW (corner of 4th and G Sts. NW)
U.S. General Accounting Office
Washington, DC**

**Orders may also be placed by calling (202) 512-6000
or by using fax number (301) 258-4066, or TDD (301) 413-0006.**

Each day, GAO issues a list of newly available reports and testimony. To receive facsimile copies of the daily list or any list from the past 30 days, please call (202) 512-6000 using a touchtone phone. A recorded menu will provide information on how to obtain these lists.

For information on how to access GAO reports on the INTERNET, send an e-mail message with "info" in the body to:

info@www.gao.gov

or visit GAO's World Wide Web Home Page at:

<http://www.gao.gov>